REMARKS

I. Specification

Minor clerical errors in paragraphs [0017] & [0045] have been corrected.

II. Claim Rejections Under 35 U.S.C. §103

Requirements for Prima Facie Obviousness

The obligation of the Examiner to go forward and produce reasoning and evidence in support of obviousness under 35 U.S.C. §103 is clearly defined at M.P.E.P. §2142:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

M.P.E.P. §2143 sets out the three basic criteria that a patent examiner must satisfy to establish a *prima facie* case of obviousness necessary for establishing a rejection to a claim under 35 U.S.C. §103:

1. some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

2. a reasonable expectation of success; and

3. the teaching or suggestion of all the claim limitations by the prior art reference (or references when combined).

It follows that in the absence of such a *prima facie* showing of obviousness under 35 U.S.C. §103 by the examiner (assuming there are no objections or other grounds for rejection), an Applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443 (Fed. Cir. 1992).

Thus, in order to support an obviousness rejection under 35 U.S.C. §103, the Examiner is obliged to produce evidence compelling a conclusion that each of the three aforementioned basic criteria has been met.

Kelly et al in view of Mecalf et al

Claims 1, 3-10, 15-20 were rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Kelly et al (US 2005/0088361), hereinafter Kelly, in view of Mecalf et al (US 2005/0076982), hereinafter Mecalf.

The Examiner argued that Kelly teaches an electronic component assembly in a tire comprising an antenna block (figure 3, item 28) with a plurality of grooves that maintain a plurality of antennas (figure 3, items 34,30,36,38). The Examiner acknowledged that Kelly does not explicitly disclose a top locator block located above the antenna block that comprises a patch that can receive signals from the antennas. The Examiner argued that Mecalf discloses a post patch assembly for mounting devices in a tire interior comprising a patch mounting assembly and an electronics assembly (page 2, paragraph 015) and that the electronic devices may include sensors or RFID transponders (page 2, paragraph 015). The Examiner asserted that the structure of the invention of Mecalf could be considered the Applicant's "top locator block" and that it would be obvious to one of ordinary skill in the art at the time the invention was made to use the patch assembly of Mecalf with the electronics component of Kelly in order to allow the versatility to mount a plurality of different devices.

Furthermore, in regard to claims 3, 15, the Examiner argued that Mecalf discloses that the electronic devices may include sensors or RFID transponders (page 2, paragraph 15). In regard to claims 4,16, the Examiner argued that Mecalf discloses that a non-conductive rubber or elastic material encapsulates the antenna and other selected electronic components (page 2, 0016). In regard to claims 5,17,

the Examiner argued that Kelly discloses the mounting member or antenna block may be made of a material that is non-conducting at RF frequencies such as plastic, no non-conducting materials such as ryton (page 7, paragraph 0080). In regard to claims 6-7, 18-19, the Examiner argued that the cover may be any configuration commonly known in the art (page 10, paragraph 0097) and that one of ordinary skill in the art would therefore recognize that (configuration) is not affected by RF signals or an amorphous thermoplastic polythermide material. Also, regarding claims 8, 9, 10 and 20, the Examiner respectively argued that Kelly discloses two grooves, two antennas, and that the mounting member or antenna block is rectangular but could be of any shape (page 6, paragraph 0073).

The Applicants respectfully disagree with this assessment. In particular, the Applicant's claim 1 is directed towards a wireless fixture system comprising an antenna block comprising a plurality of grooves, wherein the plurality of grooves maintain a plurality of antennas located on at least one portion of the antenna block; and a top locator block located above said antenna block, wherein said top locator comprises a top surface having depression thereon for receiving and locating a patch, which can receive wireless signals from said plurality of antennas for sensor testing thereof.

Kelly is directed to an electronics component assembly including a tire and a mounting member which is incorporated in the tire. Antenna wires, incorporated in the tire, are attached to the mounting member (see FIGS. 1 & 2 and paragraph 0008) which in turn are hardwired to the electronics (paragraph 0057). Kelly does not disclose a top locator block located above the antenna block, wherein the top locator comprises a top surface having depression thereon for receiving and locating a patch, which can receive wireless signals from the plurality of antennas for sensor testing thereof as claimed in claim 1.

Mecalf is directed to an electronic assembly including a mounting patch (see paragraph 001) in which a power source 4 is embedded (FIGS. 1 & 2 & paragraph 0015). A PCB 3 having components thereon is bonded on the upper side of the patch 2. Antennas 20 are hardwired to the PCB 3 and the antennas 20, along with the battery 4, are cured into the material forming the patch (see paragraphs 0046 7 0047 and FIG. 1) with a view to increasing the transmission range from the components (see paragraph 0016).

Contrary to the Examiner's assertion, the structure of Mecalf is not the applicant's "top locator block" because Mecalf does not disclose a top locator block which comprises a top surface having depression thereon for receiving and locating a patch as claimed in claim 1. Instead, the structure of Mecalf discloses a self-supporting patch which is designed to be directly attached to the tire (see FIGS. 1 & 2). Moreover, Mecalf does not disclose a patch which can receive wireless signals from the plurality of antennas for sensor testing thereof as claimed in claim 1. The patch of Mecalf is specifically adapted to receive signals from the antennas 20 via hardwires 22 and not wireless signals as claimed. The top locator block as claimed in claim 1 is advantageous in that it enables patches to be tested easily and quickly unlike in Kelly or Mecalf.

Furthermore, it is respectfully submitted that there is no suggestion or motivation, either in the Kelly or Mecalf or in the knowledge generally available to one of ordinary skill in the art, to modify Kelly to provide a top locator block located above the antenna block, wherein the top locator comprises a top surface having depression thereon for receiving and locating a patch, which can receive wireless signals from the plurality of antennas for sensor testing thereof.

Additionally, it is respectfully submitted that one of ordinary skill in the art would be deterred from modifying Kelly to include a patch 2 of Mecalf because to do so would require a complete reconfiguration of the patch 2 including removal of the antennas and their interconnects from within the patch material (see FIG. 1) so that

an intended function of the patch to improve signal transmission, as taught by Mecalf, would be destroyed.

With regard to independent method claim 13, the Applicants' arguments set forth above in relation to claim 1 also apply to claim 13.

Furthermore, with regard to claims 3,15, the Examiner argues that Mecalf discloses that the electronic devices may include sensors or RFID transponders. However, Mecalf does not disclose a SAW sensor and an RFID tag over-molded into the patch as disclosed in the Applicants' claims 3,15.

Also, with regard to claims 7 & 19, the Examiner argues that one of ordinary skill in the art would recognize that the antenna cover may be an amorphous thermoplastic polyetherimide material but has not provided any evidence that adopting such material is common in the art.

Having regard to the cited prior art, claim 10 has been amended to provide adequate protection for important features of an embodiment.

Thus, with regard to independent claims 1, 13 and the claims 3-10 and 15-20 dependent therefrom, each of the aforementioned basic criteria that must be satisfied to establish a *prima facie* case of obviousness necessary for establishing a rejection to a claim under 35 U.S.C. §103 are not met. Particularly, the third prong of the aforementioned test is not satisfied because there is no teaching or suggestion of all the claims' limitations by Kelly and Mecalf taken alone or in combination and there is no suggestion or motivation, either in Kelly and Mecalf themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Kelly or to combine the teachings of Kelly and Mecalf so as to provide the claims' limitations, in particular, a top locator block located above the antenna block, wherein the top locator block comprises a top surface having depression

thereon for receiving and locating a patch, which can receives wireless signals from said plurality of antennas for sensor testing thereof.

Therefore, the Applicants submit that the rejection to claims 1, 3-10, 15-20 has been traversed and should be withdrawn. The Applicants therefore respectfully request that the rejection to claims 1, 3-10, 15-20 be withdrawn.

Kelly et al and Mecalf et al further in view of Ohe et al

Claims 2, 11-12, and 14 were rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Kelly in view of Mecalf et al as applied to claims 1 and 13 above, and further in view of Ohe et al (US 4,823,141), hereinafter Ohe.

The Examiner argued that Kelly further discloses a cover to protect the various components of the electronic assembly (page 4, paragraph 0057) and acknowledged that the combination of Kelly and Mecalf does not explicitly disclose a BNC connector that is electrically connected to the plurality of antennas. The Examiner asserts that Ohe discloses a vehicle antenna system in which a BNC connector is used to connect an antenna system with a coaxial cable (columns 5, lines 5-10) and it would be obvious for one of ordinary skill in the art at the time the invention was made to use a BNC connector with the combination of Kelly and Mecalf in order to reduce the total size of the antenna.

The Applicants respectfully disagree with this assessment. Applicant's independent claim 11 is directed towards a wireless fixture system, comprising an antenna block comprising a plurality of grooves, wherein the plurality of grooves maintain a plurality of antennas located on at least one portion of the antenna block; a top locator block located above the antenna block, wherein the top locator comprises a top surface having depression thereon for receiving and locating a patch, which can receive wireless signals from the plurality of antennas for sensor

testing thereof, wherein the patch comprises a SAW sensor and an RFID tag over-molded into the patch; an antenna cover connected to the antenna block for protecting said plurality of antennas and wiring thereof; and a BNC connector that protrudes from the antenna block and is electrically connected to the plurality of antennas via the wiring thereof.

For the reasons already set forth above in relation to claims 1, 13, it is respectfully submitted that there is no suggestion or motivation, either in the Kelly or Mecalf or in the knowledge generally available to one of ordinary skill in the art, to modify Kelly to provide a top locator block located above the antenna block, wherein the top locator comprises a top surface having depression thereon for receiving and locating a patch, which can receive wireless signals from the plurality of antennas for sensor testing thereof.

Furthermore, Mecalf does not disclose or suggest a SAW sensor and an RFID tag over-molded into the patch as disclosed in the Applicant's claim 11. Also, contrary to the Examiner's assertion, it would not be obvious for one of ordinary skill in the art at the time the invention was made to use a BNC connector of Ohe with the combination of Kelly and Mecalf in order to reduce the total size of the antenna. Ohe discloses a BNC connector for connecting an antenna system disposed in the vehicle body to various on board receivers such as radios and TVs (see column 2, lines 40-50 and column 4, lines 40-43). One or ordinary skill in the art would understand that it would be completely inappropriate to modify Kelly so that a BNC connector protrudes the mounting block (antenna block) and is electrically connected to the plurality of antennas via the wiring thereof as claimed in claim 11 because to do so would require one of ordinary skill in the art to incorporate the BNC connector within the tire in which the mounting block is disposed. One of ordinary skill in the art would be discouraged from making such a modification because of the technical problems involved in connecting the mating end of the BNC connector to onboard circuitry located outside the tire.

Similar, for the reasons set forth in the preceding paragraph, one of ordinary skill in the art would not modifying Kelly so that a BNC protrudes the mounting block (antenna block) and is electrically connected to the plurality of antennas via the wiring thereof as claimed in claims 2 and 14

Any rejection to independent claim 11 and dependent claims 2, 12, 14 fails under the first prong of the aforementioned prima facie obviousness test because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Kelly, Mecalf or Ohe or to combine Kelly, Mecalf or Ohe, to provide all the limitations of these claims. Furthermore, any rejection would fail under the second prong of the aforementioned prima facie obviousness text because there is no reasonable expectation of success of modifying Kelly to provide a BNC connector which protrudes the antenna block and is electrically connected to the plurality of antennas via the wiring thereof. Also, any rejection to claims 2, 11-12, 14 fails under the third prong of the aforementioned prima facie obviousness test, that is, the Kelly reference combined with the Mecalf and Ohe references does not provide for the teaching or suggestion of all the claim limitations of Applicant's claims 2, 11-12, 14.

Notwithstanding the foregoing paragraph, claim 10 has been amended to recite that the patch comprises a SAW patch and that the antenna block further comprises a pressure test rail enabling the SAW patch to react to both temperature and pressure while being interrogated wirelessly at a fixed distance in order to collect test data indicative of the SAW patch. Also, independent claim 11 has been amended so that it is directed to a wireless test fixture system. Claims 10 & 11 have been so amended in view of the cited prior art so as to provide adequate protection for important features of embodiments. It is respectfully submitted that none of the cited references taken alone or in combination disclose or suggest such features.

Therefore, the Applicants submit that the rejection to claims 2, 11-12, 14 has been traversed and should be withdrawn. The Applicants therefore respectfully request that the rejection to claims 2, 11-12, 14 be withdrawn.

III. Conclusion

In view of the foregoing discussion, the Applicants have responded to each and every rejection of the Official Action. The Applicants have clarified the structural distinctions of the present invention by discussions herein. The foregoing discussion and amendments do not present new issues for consideration and no new search is necessitated. Such amendments are supported by the specification and do not constitute new matter. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections and further examination of the present application.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned representative to conduct an interview in an effort to expedite prosecution in connection with the present application.

Respectfully submitted,

Dated: February 17, 2006

Kermit Lopez
Attorney for Applicants
Registration No. 41,953
ORTIZ & LOPEZ, PLLC
P.O. Box 4484
Albuquerque, NM 87196-4484

Tel. (505) 314-1312
Fax. (505) 314-1307